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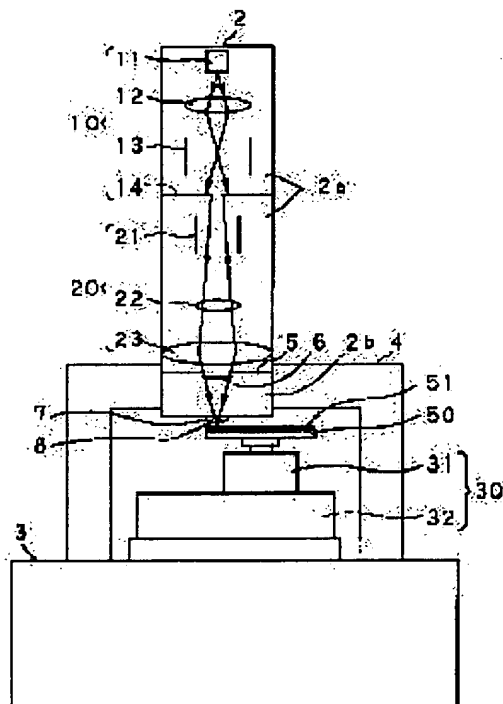
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(54) ELECTRON BEAM PLOTTING DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a small-sized and simply constituted electron beam plotting device improving productivity by arranging an electron gun and an objective lens converging an electron beam emitted from the electron gun and irradiating it on a resist layer in the environment decompressed than the air and providing the part made a helium atmosphere between the objective lens and a substrate.

SOLUTION: The electron beam emitted from the electron gun 11 is converged by a condenser lens 12 being an electrostatic lens to arrive at an aperture 14 through an electron beam modulation means 13. The electron beam transmitted through the aperture 14 is moved to an electron beam convergent part 20 in the state that a beam size is converged. A first area 2a housing an electron beam generation part 10 and an electron beam convergent part 20 in an electrooptical lens barrel 2 is made a high vacuum state of 10^{-3} Pa or below, and a second area 2b of an end part of a side opposite to the substrate 50 is made the helium atmosphere of 1-900 Pa, and the pressure difference of the air with the first area 2a made the high vacuum state is relaxed.



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